

Alg. 2 ch. 7.4 p. 453 Total -15 points

#12
(5p)

$$x^3 + 2x^2 - 48x = 0; \quad x(x^2 + 2x - 48) = 0$$

$$x(x+8)(x-6) = 0; \quad x=0; \quad \begin{matrix} x+8=0 \\ -8 \quad -8 \end{matrix}; \quad x_2 = -8$$

$$\begin{matrix} x-6=0 \\ +6 \quad +6 \end{matrix}$$

$$x=6; \quad \underline{x_1 = -8; x_2 = 0; x_3 = 6}$$

#14
(5p)

$$a^3 - 8a^2 - 48a = 0; \quad a(a^2 - 8a - 48) = 0$$

$$a(a+4)(a-12) = 0; \quad a=0; \quad \begin{matrix} a+4=0 \\ -4 \quad -4 \end{matrix}; \quad a = -4$$

$$\begin{matrix} a-12=0 \\ +12 \quad +12 \end{matrix}; \quad a=12$$

$$\underline{a_1 = -4; a_2 = 0; a_3 = 12}$$

#16
(5p)

$$x^3 - 7x^2 + 10x = 0; \quad x(x^2 - 7x + 10) = 0$$

$$x(x-5)(x-2) = 0$$

$$x=0$$

$$\begin{matrix} x-5=0 \\ +5 \quad +5 \end{matrix}$$

$$x=5;$$

$$\begin{matrix} x-2=0 \\ +2 \quad +2 \end{matrix}$$

$$x=2$$

$$\underline{x_1 = 0; \quad x_2 = 2; \quad x_3 = 5}$$